

ABSTRACT

A method and an apparatus for reducing power consumption and digital logic noise in a time division multiplexed memory switch. The method is embodied in an egress selection switch (ESS) block architecture. The ESS block includes a data disable block which prevents the propagation of data, in particular ingress grains, to a given group of egress ports if the data is not selected by any of the egress ports in a given group. While the ingress data disable method partitions ports into groups and saves power by disabling the fanout tree from the root on a port group basis, the egress data disable method saves power on a port group basis by disabling the fanout tree from the tail end in addition to applying the ingress data disable method. The ESS block also includes a grain select block for selecting and storing a given ingress grain for eventual output to an egress port.